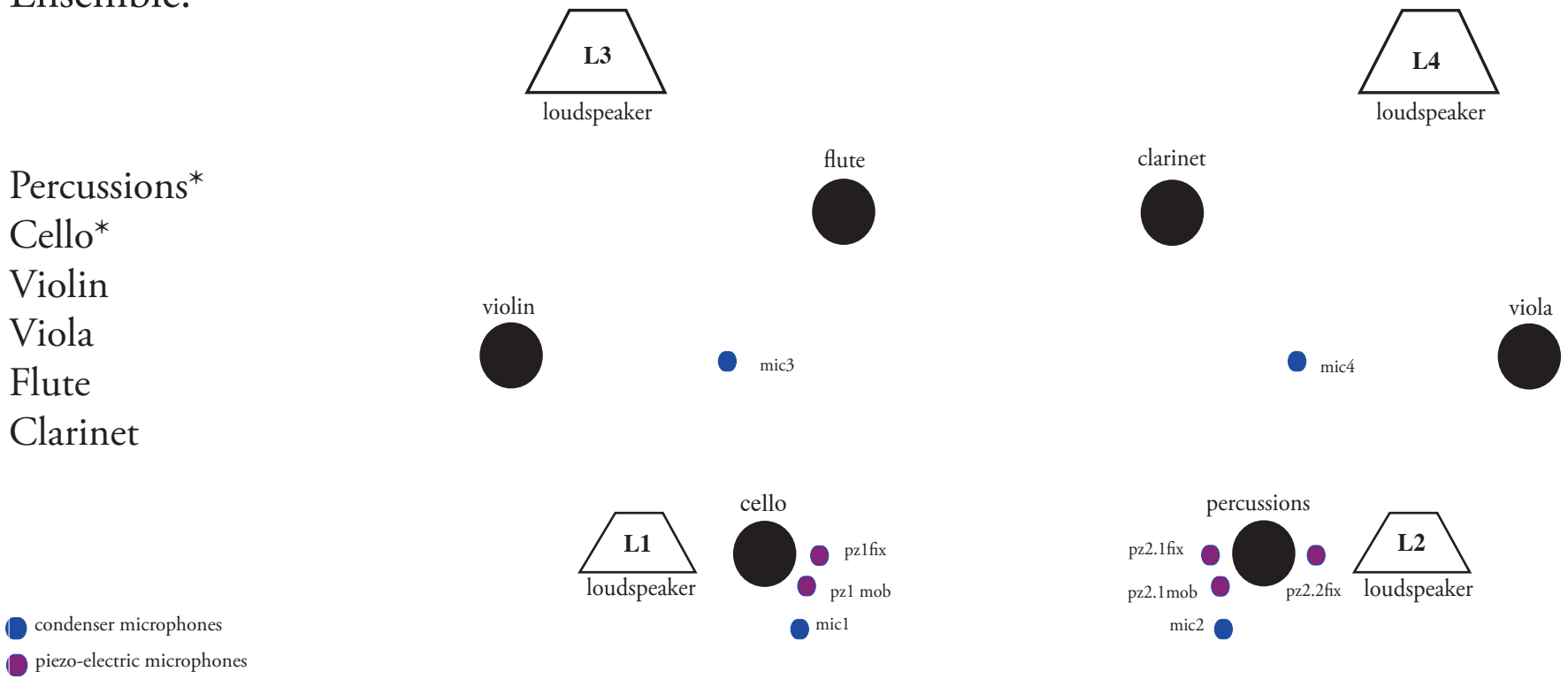
Residual

for ensemble

Daniela Fantechi

Ensemble:

Percussions*
Cello*
Violin
Viola
Flute
Clarinet



* Cello and Percussions (Timpani - 32” inch, Marimba - 5 Octave, Güiro, Crotales - G, G#, A, B, C#) will be provided with a set of 5 piezoelectric contact microphones, called simply piezo, from now on. The Cello will have one piezo which will be used to play on the instrument and another one which will be fixed on its body. Concerning the Percussion one piezo will be fixed on the surface of the Timpani, another one on the lowest C-key of the Marimba and a third one will be used to play the Crotales and the Güiro. Both the percussion player and the cellist will have one pedal to control the volume of the mobile piezos used to play.

Amplification:

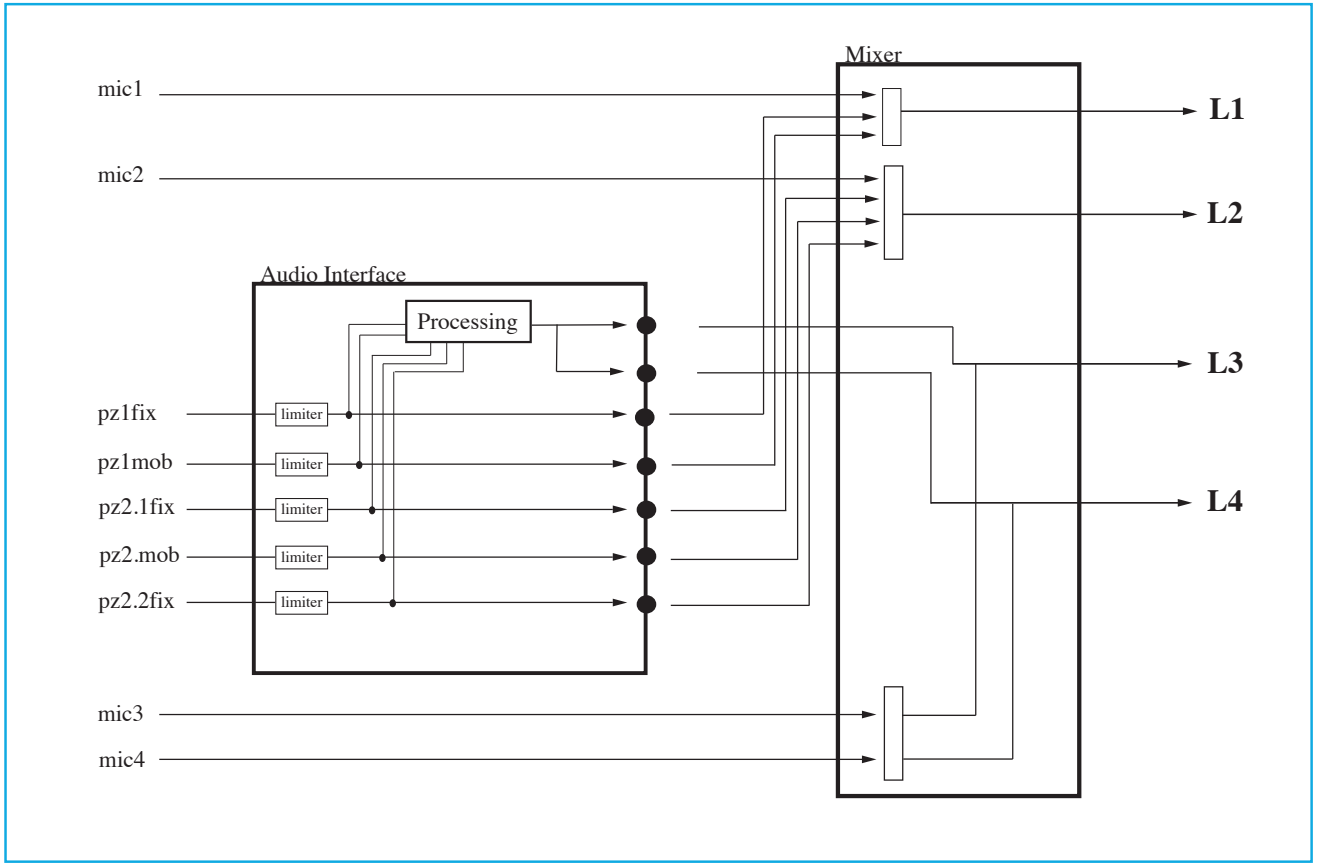
violin, flute, clarinet, viola:

mic3
mic4 } → **L3 / L4**

cello : mic1
pz1fix
pz1mob } → **L1**

perc : mic2
pz2.1fix
pz2.1mob
pz2.2fix
(pz2.2mob) } → **L2**

Processed signals from
cello and percussion
as stereo out on L3 and L4



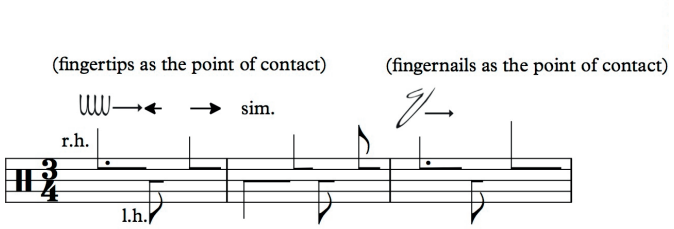
Documentation for the electronics:

The patch is written in SuperCollider and it contains the following instruments: 1 Recorder, 1 Player, 1 Granulator, 1 Delay. The MIDI controller required to play the piece should have 5 sliders to control the volume of the Granulators, 4 buttons to activate the Delays. The notated material enclosed in rectangles corresponds to the buffers that have to be recorded live (the start and the end of the recording are already programmed in each related cue), or to the material that is going to be processed through the delay. Both the percussion player and the cellist should be able to control the volume of the mobile piezo with a volume pedal. The balance between the volume of the other piezos used for amplification and the condenser microphones has to be checked during the setup, according to the features of the space where the piece will be performed.

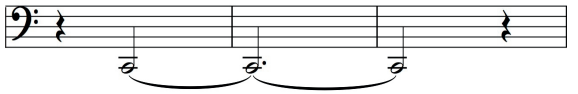
Performance Notes

Percussions - actions with the piezo, or amplified by the piezo

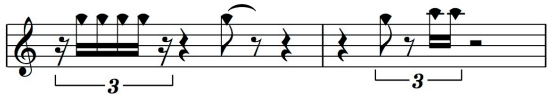
Timpani (from b.1 to b.127)
One piezo is fixed on the timpani. Slide the hands on the surface of the instrument, alternating left and right hand, in order to mark the rhythm. The right hand always moves from left to right, while the left hand always move in the opposite direction, from right to left. The surface of the timpani has to be played with the fingernails as the point of contact (louder sound) or with the fingertips (softer sound).



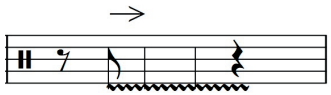
Marimba
One piezo is fixed on the timpani. Always to be played with bow.



Crotales
Always tap the crotales with the edge of the piezo, leaving it resonating.

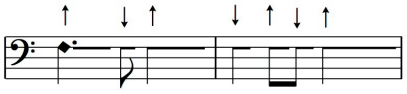


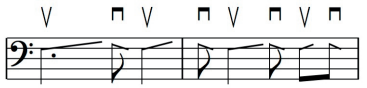
Güiro
Always to be played with the piezo, using the thumb to dampen the sound a bit.

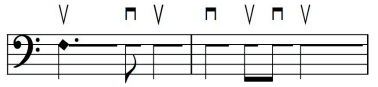


Cello - actions with piezo

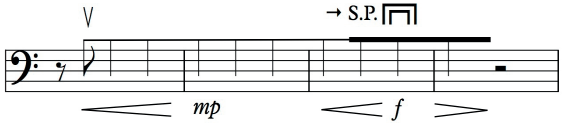
From b.1 to b.100 the piezo has to be placed flat on the indicated string in the position more or less corresponding to the diamond-head note. When a string change is required it has to be done moving the piezo from one string to the contiguous one as gently as possible on the correspondent height. The piezo is hold still when notes are connected by straight lines, whether it has to do small glissandos, according to the indicated direction, when the lines are oblique. The bow has always to be "molto sul tasto" and it always has to alternate direction, in order to mark the rhythm. Vertical arrows stand for a vertical movement of the bow in the range between the bridge and the end of the fingerboard. Down and up symbols of the bow indicate the ordinary horizontal movement, always with the changing of the direction.



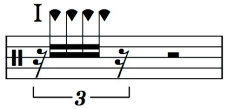




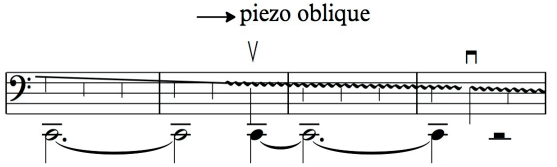
From b.129 to b.212 again the piezo has to be placed flat on the indicated string in the position more or less corresponding to the diamond-head note. In this section, movements are slower and the sound quality should be extremely airy, except for those moments in which the dynamic grows and more pressure and the movement of the bow toward the bridge are required.



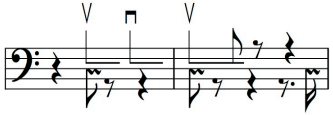
From b.216 to b.266 all actions with the bow are similar to the ones of previous sections and the piezo is placed flat in the space between the bridge and the end of the fingerboard on the indicated string. Percussive actions instead have to be done tapping with the edge of the piezo the indicated string in a random point, but within the same range between the bridge and the end of the fingerboard, while dampening all the strings with the other hand.



From b.268 to b.293 a double stop is required and a balance has to be found between the sound of the IV open string and the sound of the III string played with the piezo. Gradually (at b.291) the piezo has to be moved from flat to oblique on the string. With a certain control of the pressure, the oblique piezo will produce a scraped sound and looking for the friction with the contour of the string with little and slow movements the scraped sound will be dark enough.

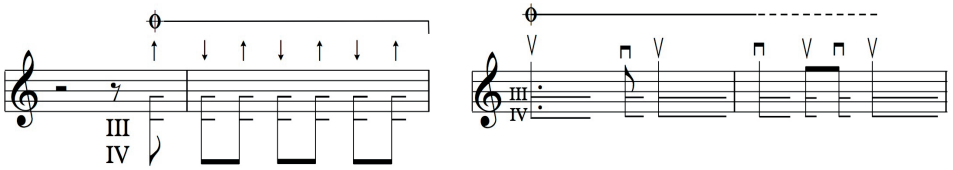


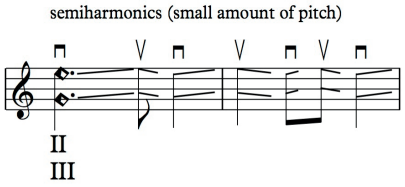
From b.295 right-hand and left-hand actions are separately notated. The left hand will iterate the short movement with the piezo oblique on the third string, looking for a dark scraped sound. The right hand will play with the bow the same string, simultaneously or not (when the right hand will play alone the left hand will hold the piezo still).



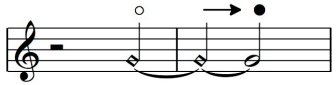
Violin and Viola

From b.1 to b.139 the rhythmical gestures have to be articulated between three different degrees of airy sounds. The first one should be as pitchless as possible, dampening the strings with the left hand (violin: bb.20-69, viola:bb.26-66). The bow has always to be "molto sul tasto" and it always has to alternate direction, in order to mark the rhythm. Vertical arrows stand for a vertical movement of the bow in the range between the bridge and the end of the fingerboard. Down and up symbols of the bow indicate the ordinary horizontal movement, always with the changing of the direction.
The second degree of airy sound (violin:bb.70-102, viola:bb.67-93) presents a small amount of pitch and it is obtained with semi-harmonics: same pressure of harmonics but using two fingers, the first one in the position indicated, the second one just behind in order to prevent natural harmonics to come out.
The third degree of airy sound is an harmonic sound - natural or artificial - that has to be played with a small presssure of the bow, always "molto sul tasto".

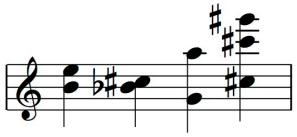




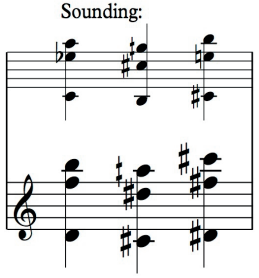
Flute and Clarinet



From blowing to ordinario sound.



Multiphonics for the flute



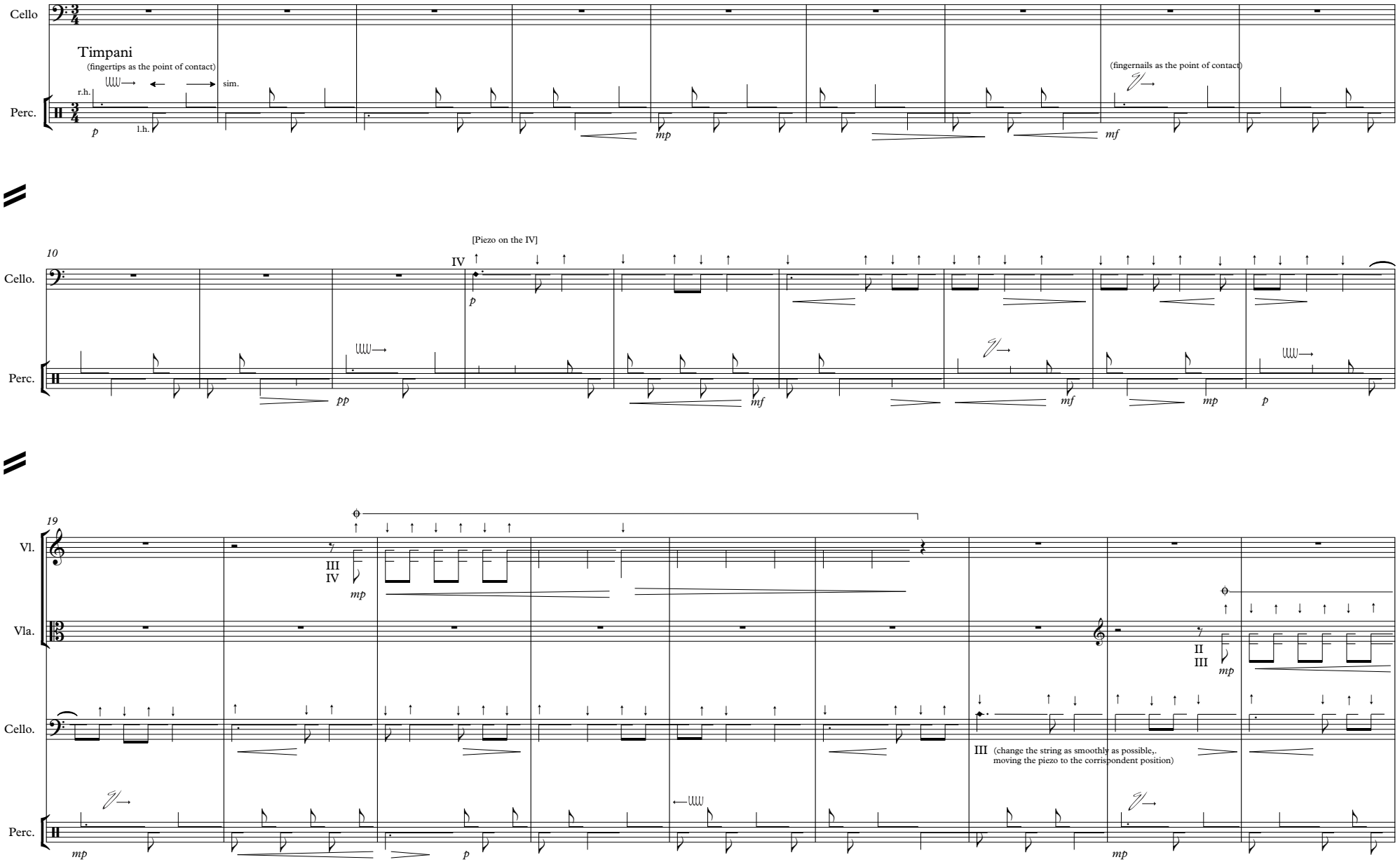
Multiphonics for the clarinet

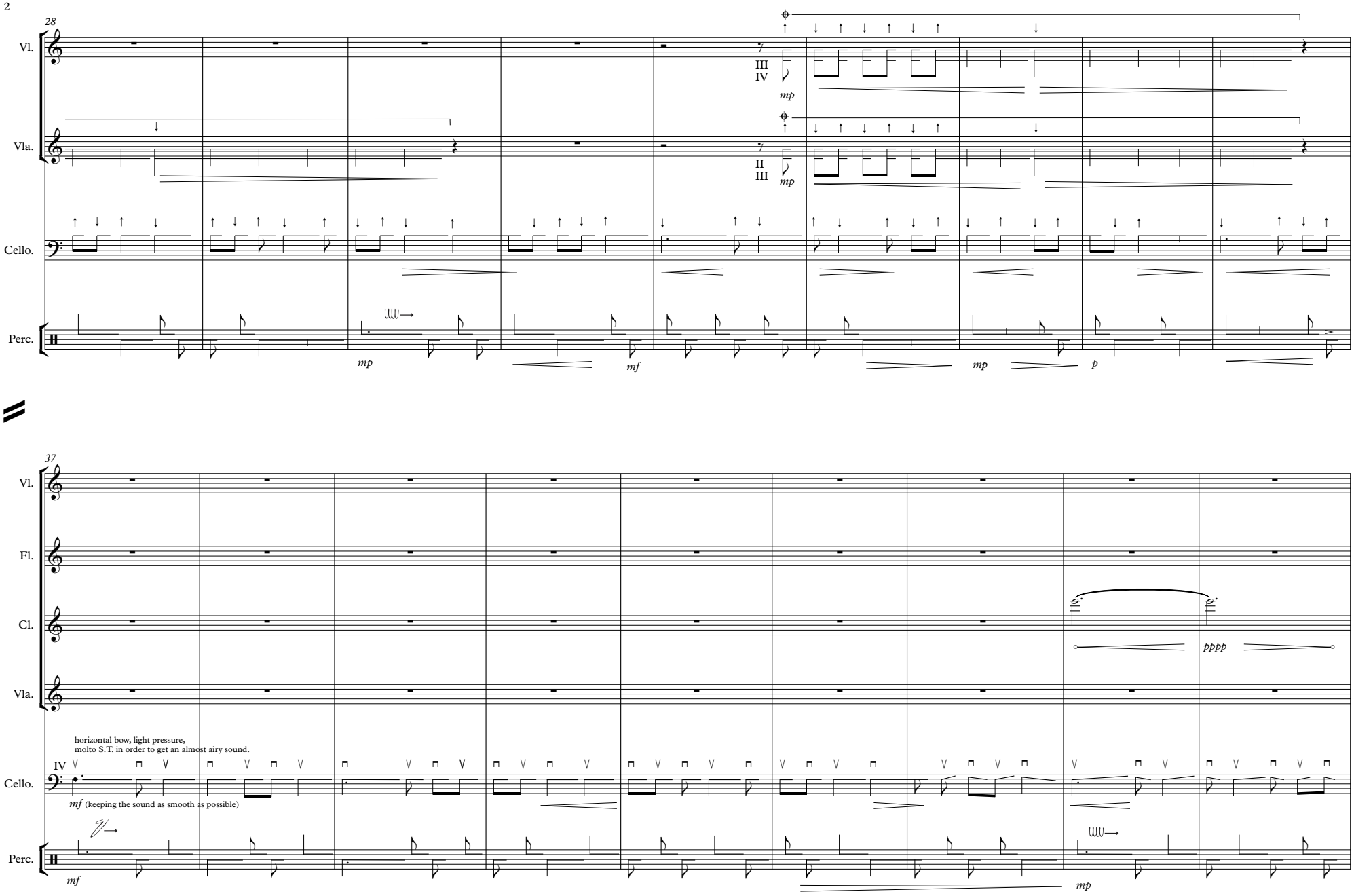
Residual

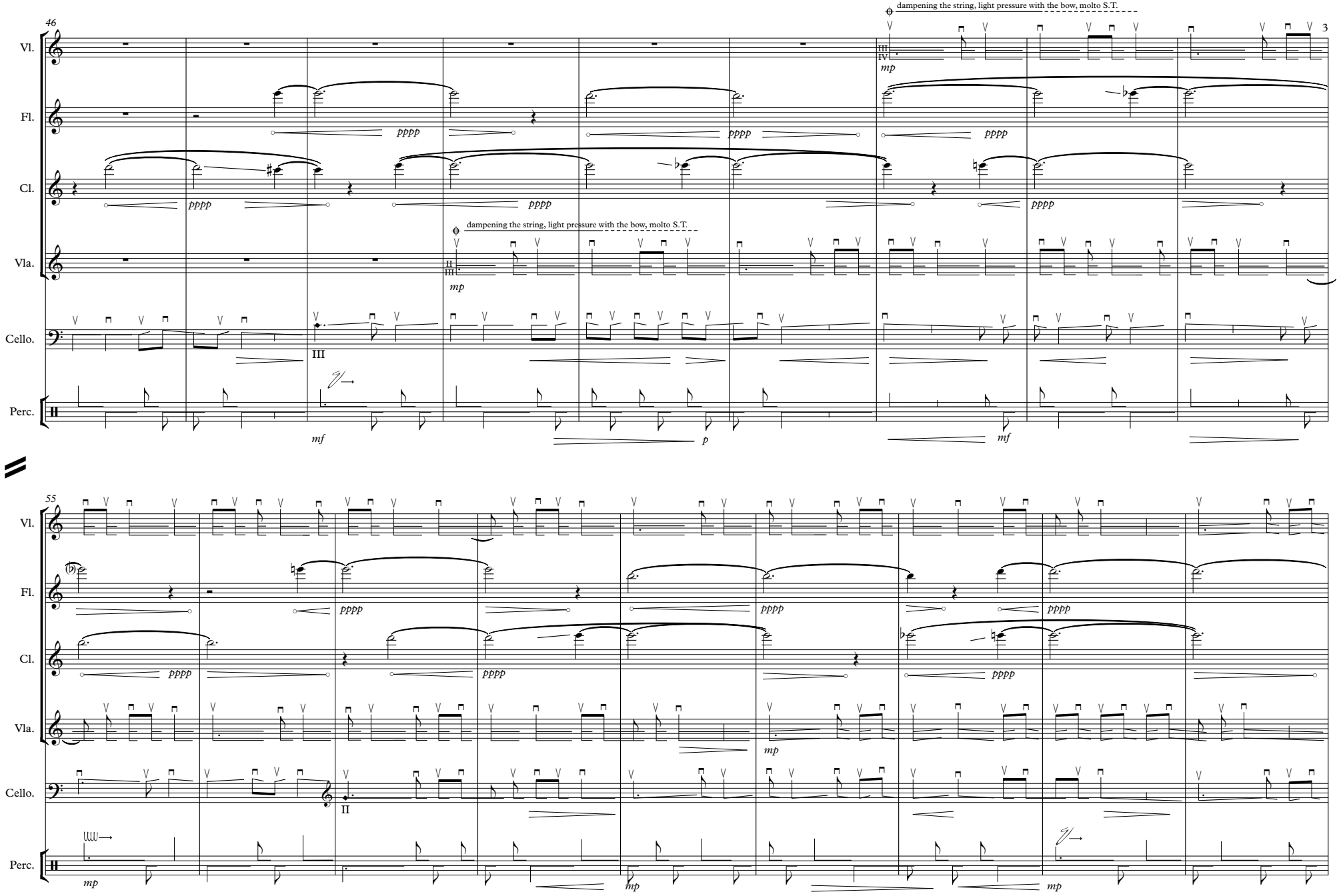
Quasi meccanico

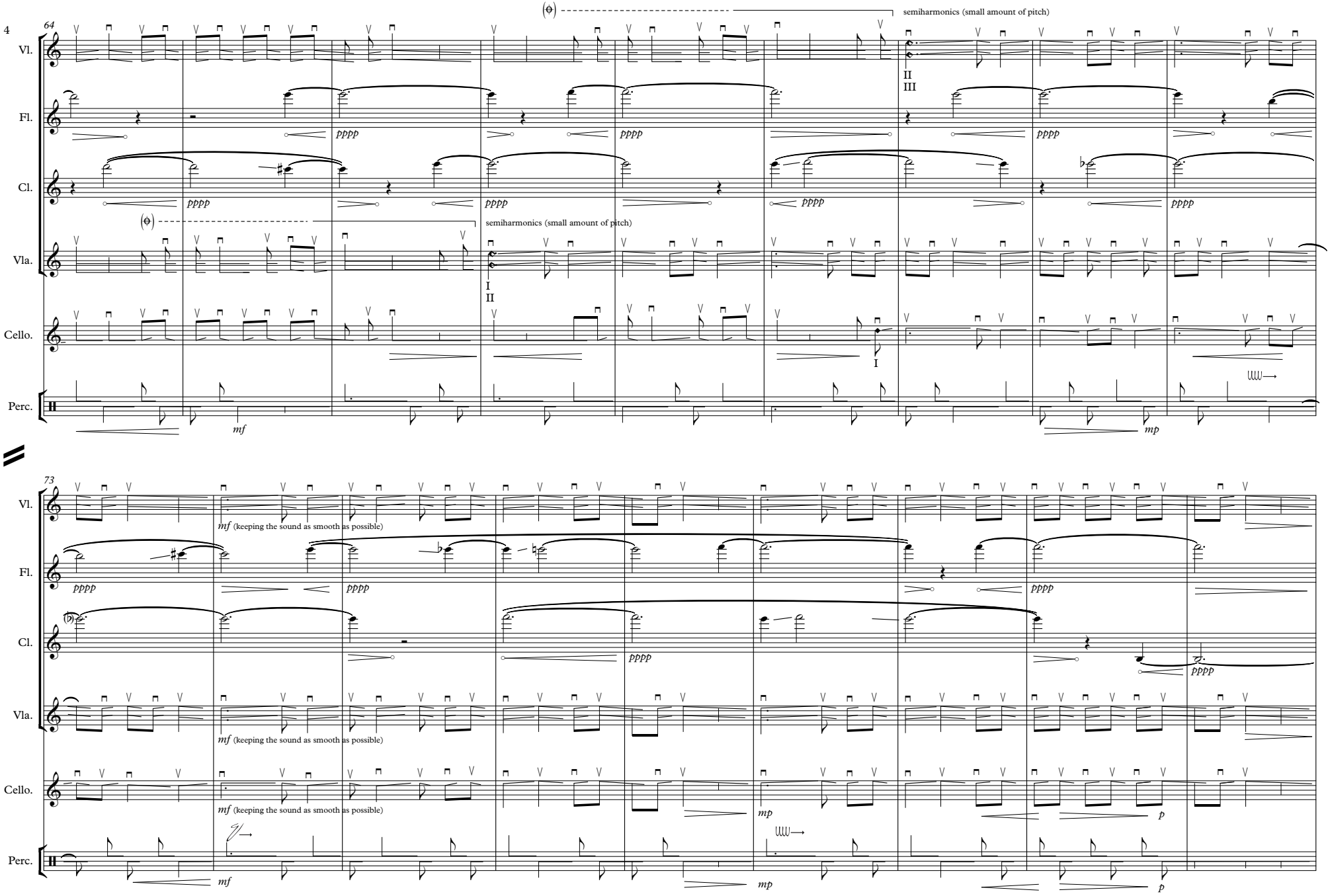
♩ = 120 circa

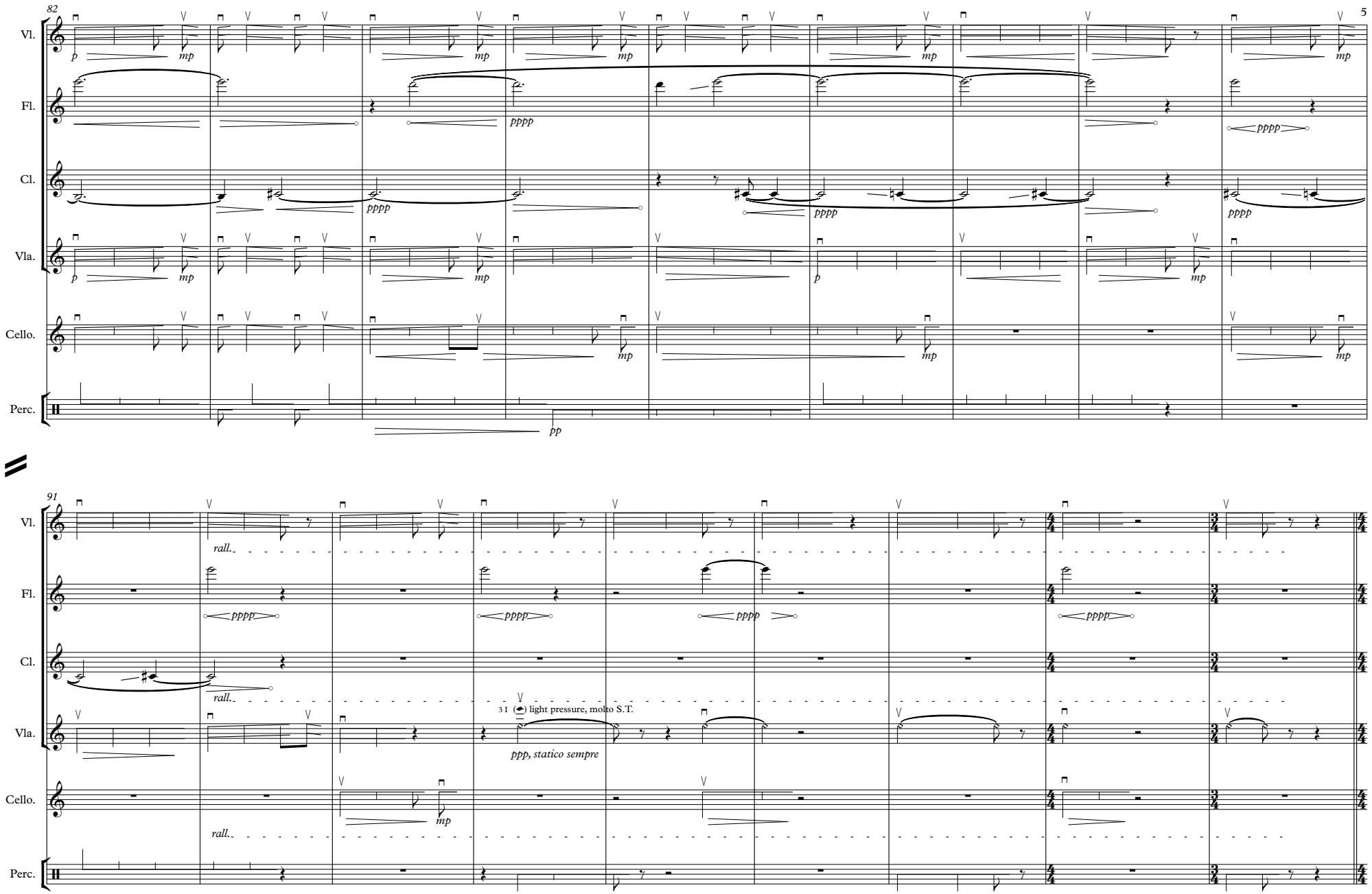
Daniela Fantechi

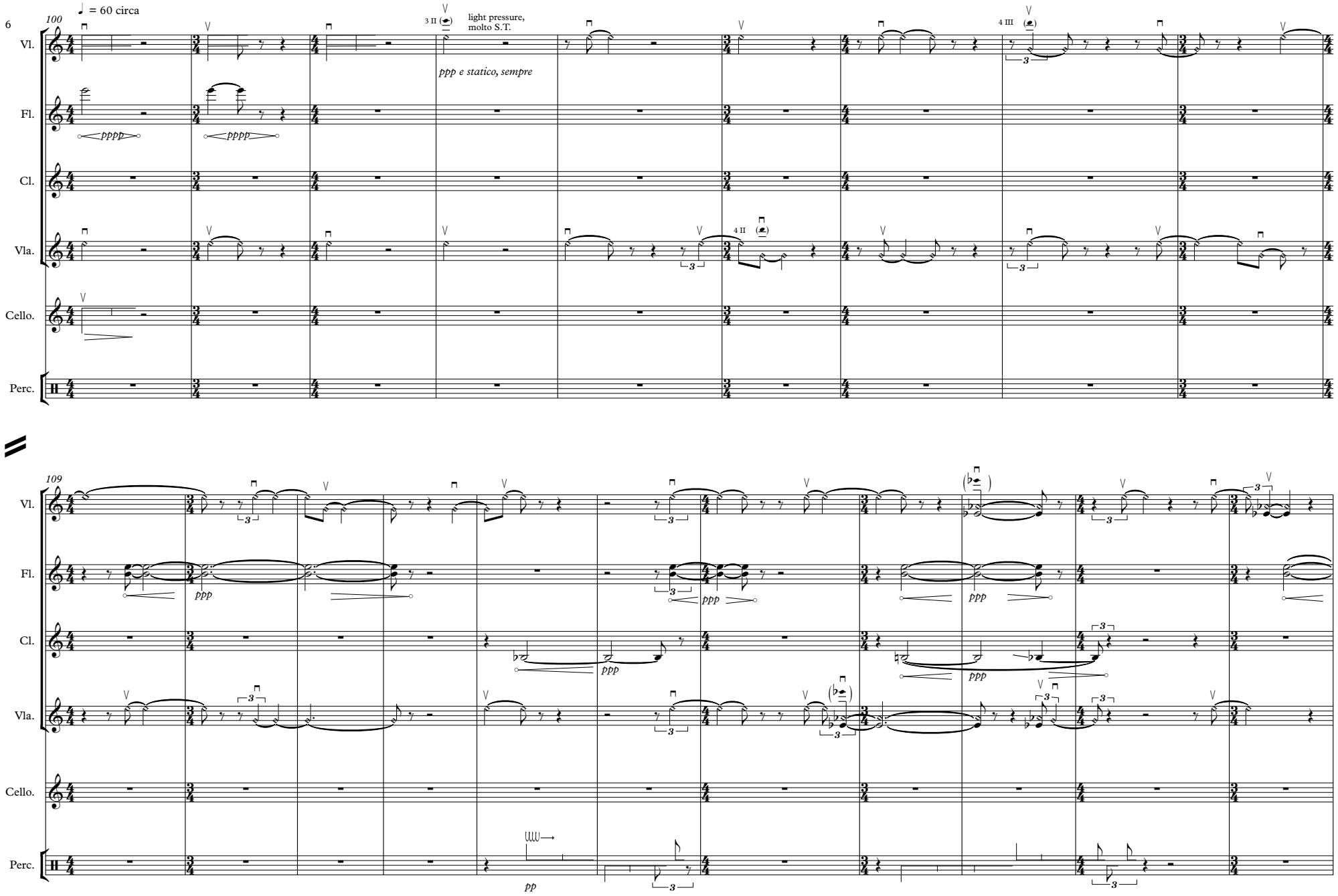


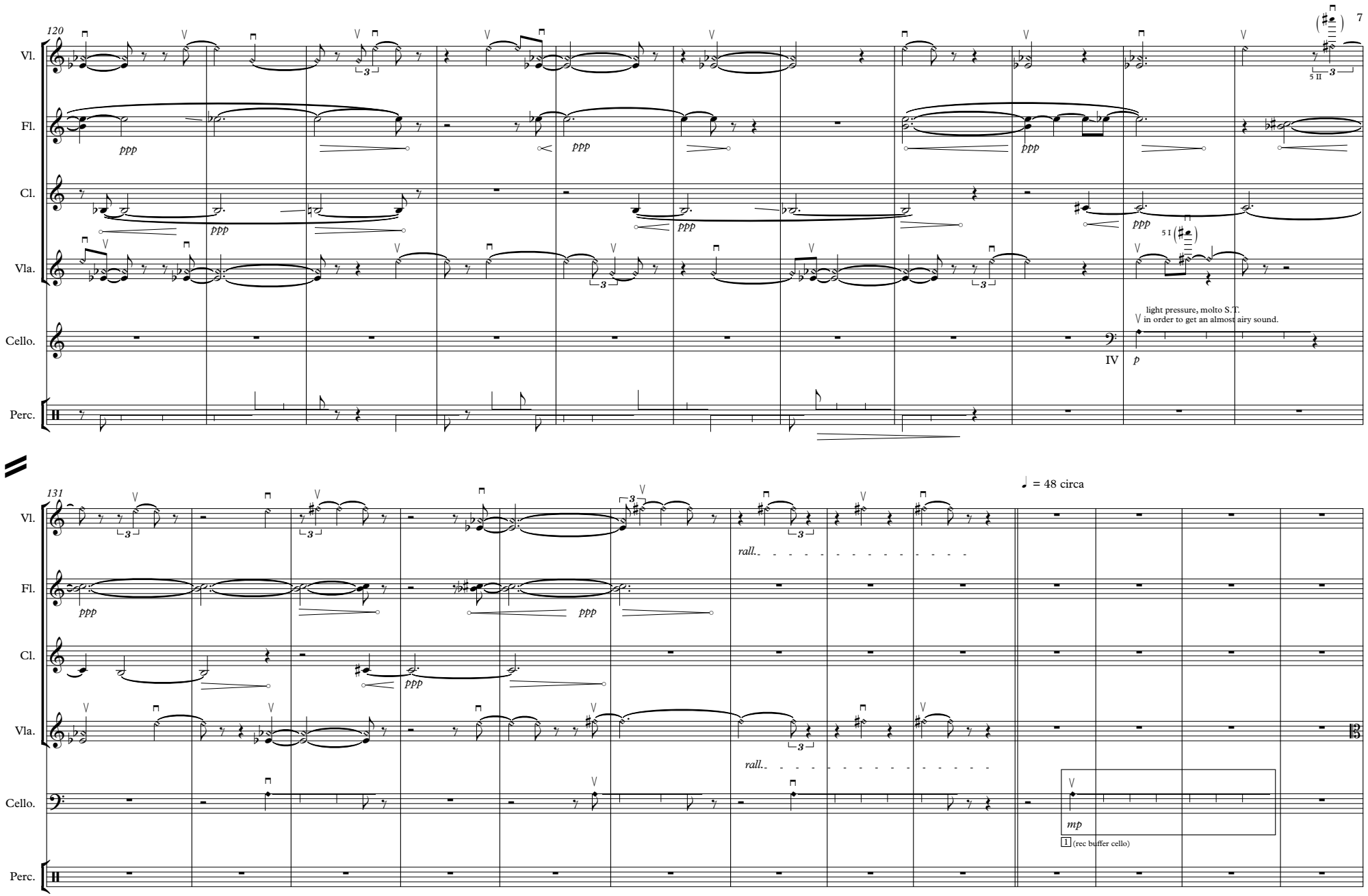

28
Vl.
Vla.
Cello.
Perc.
III
IV
II
III
mp
mp
mf
mp
p
37
Vl.
Fl.
Cl.
Vla.
Cello.
Perc.
pppp
horizontal bow, light pressure,
molto S.T. in order to get an almost airy sound.
IV
mf (keeping the sound as smooth as possible)
mf
mp

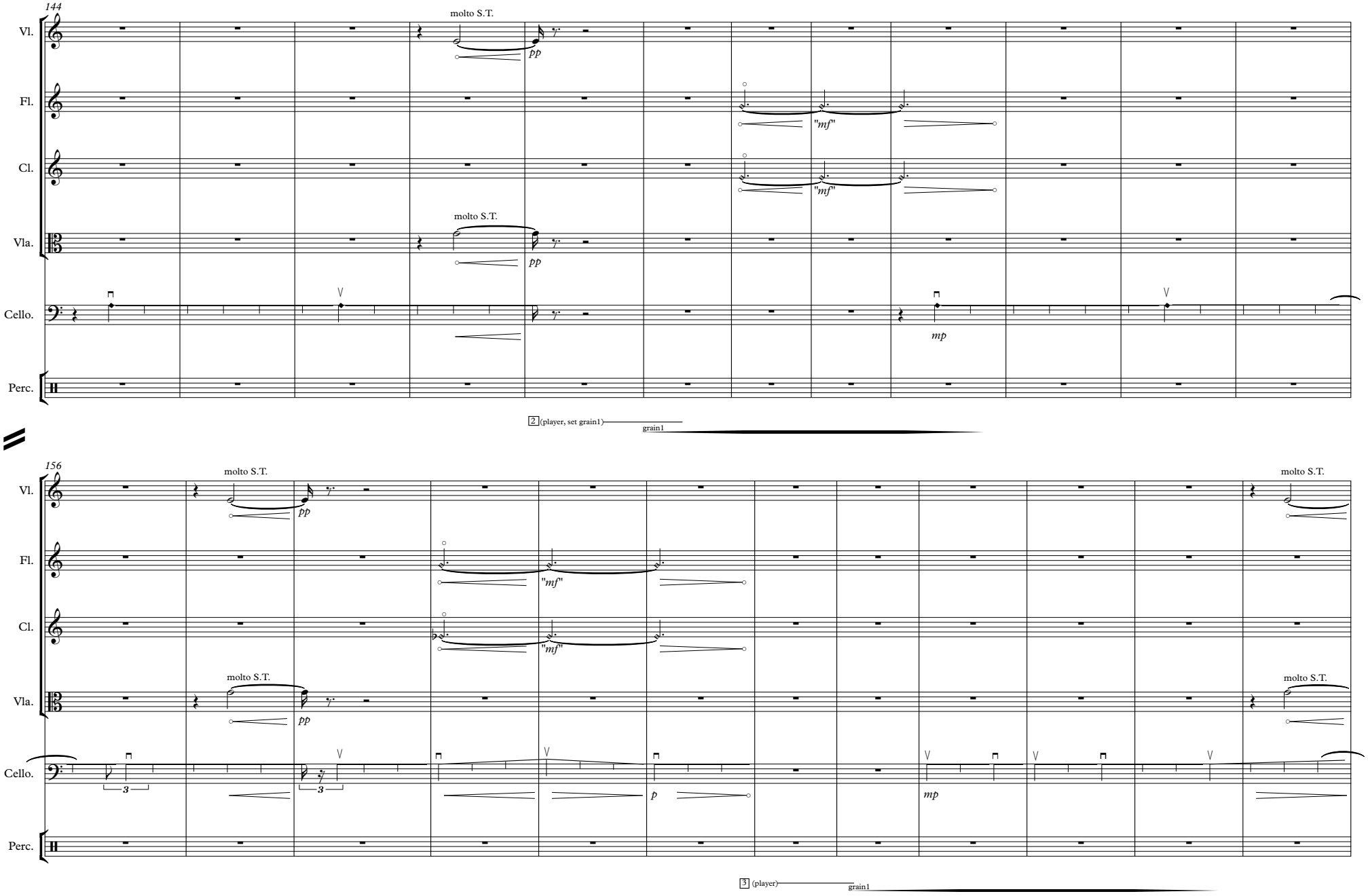

46
Vl.
Fl.
Cl.
Vla.
Cello.
Perc.
dampening the string, light pressure with the bow, molto S.T.
dampening the string, light pressure with the bow, molto S.T.
3
pppp
mp
mf
p
55

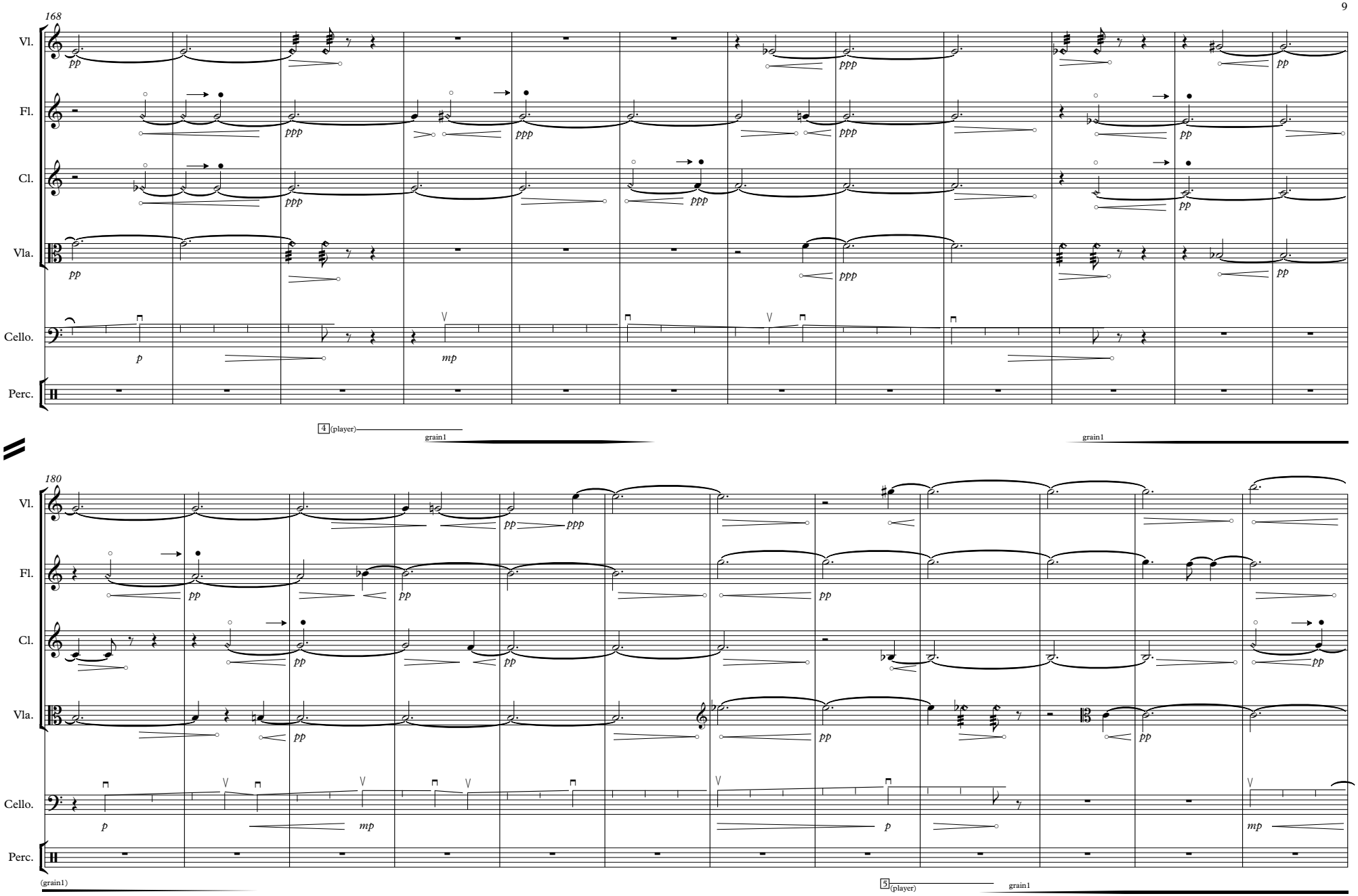

64
Vl.
Fl.
Cl.
Vla.
Cello.
Perc.
semiharmonics (small amount of pitch)
semiharmonics (small amount of pitch)
II
III
I
II
I
pppp
mf
mp
73
mf (keeping the sound as smooth as possible)
p

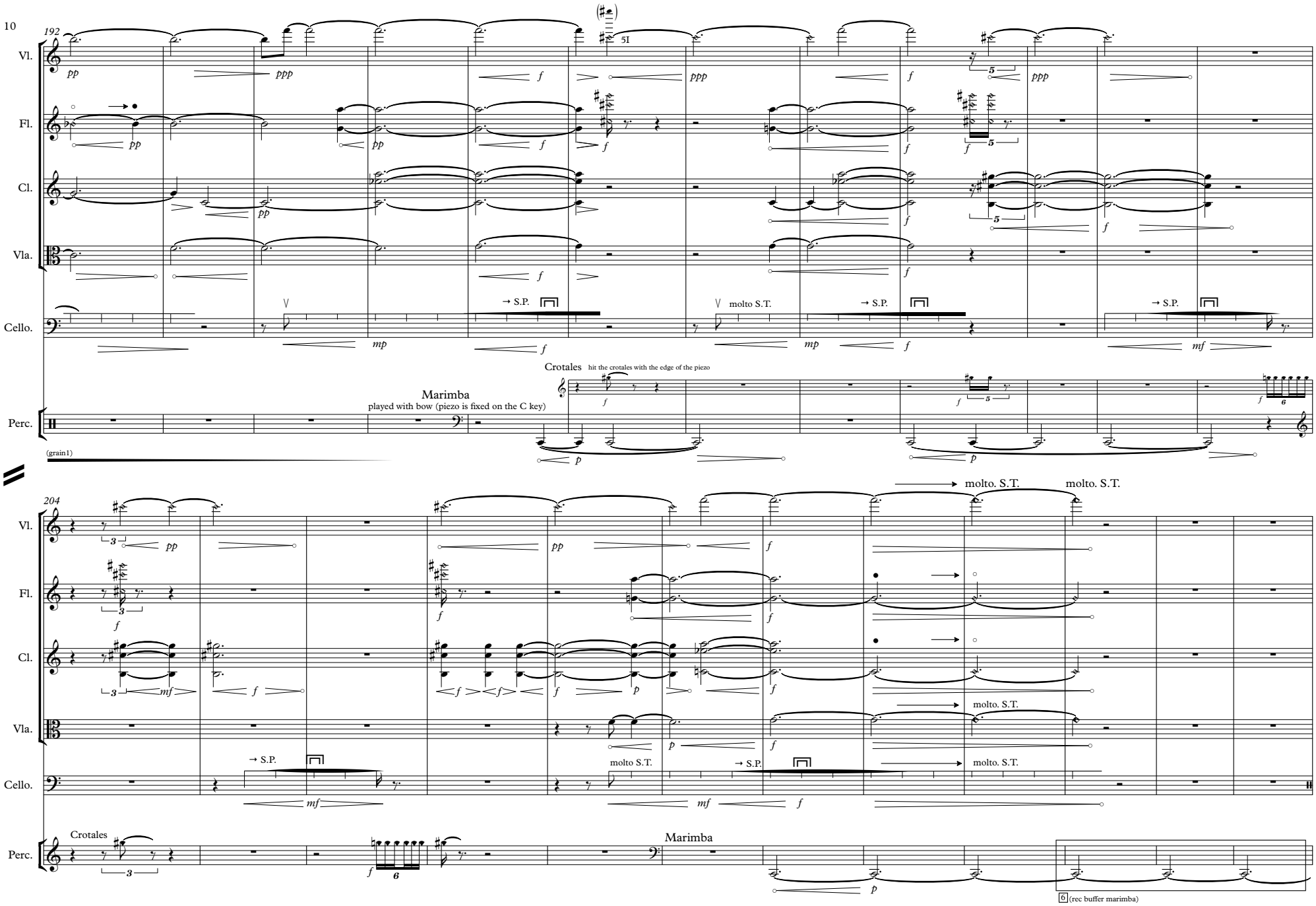

82
Vl.
Fl.
Cl.
Vla.
Cello.
Perc.
p
mp
pppp
pp
91
rall.
3 I
light pressure, molto S.T.
ppp, statico sempre

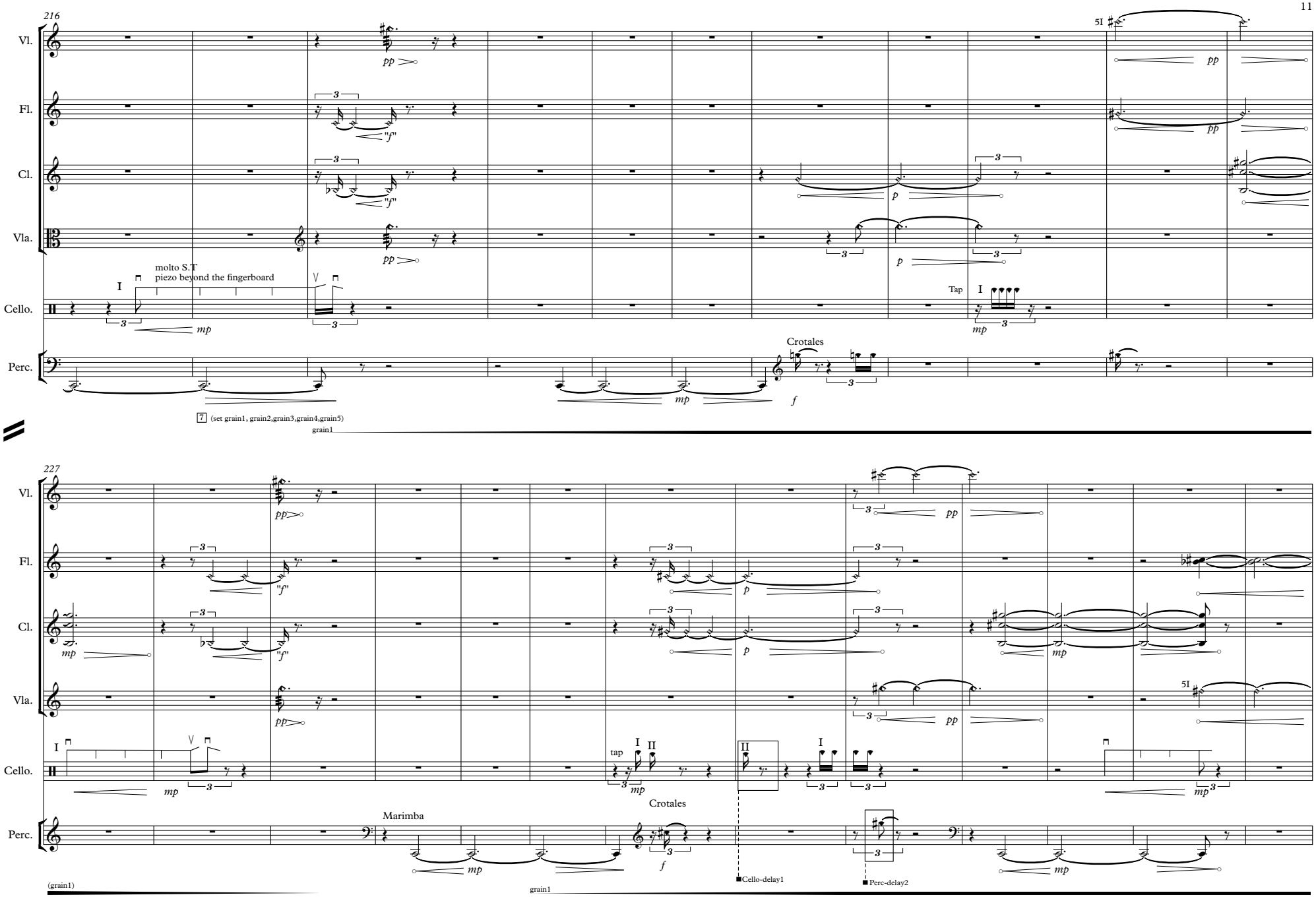

100
♩ = 60 circa
3 II
light pressure,
molto S.T.
ppp e statico, sempre
4 III
4 II
Vl.
Fl.
Cl.
Vla.
Cello.
Perc.
pppp
109
ppp
pp

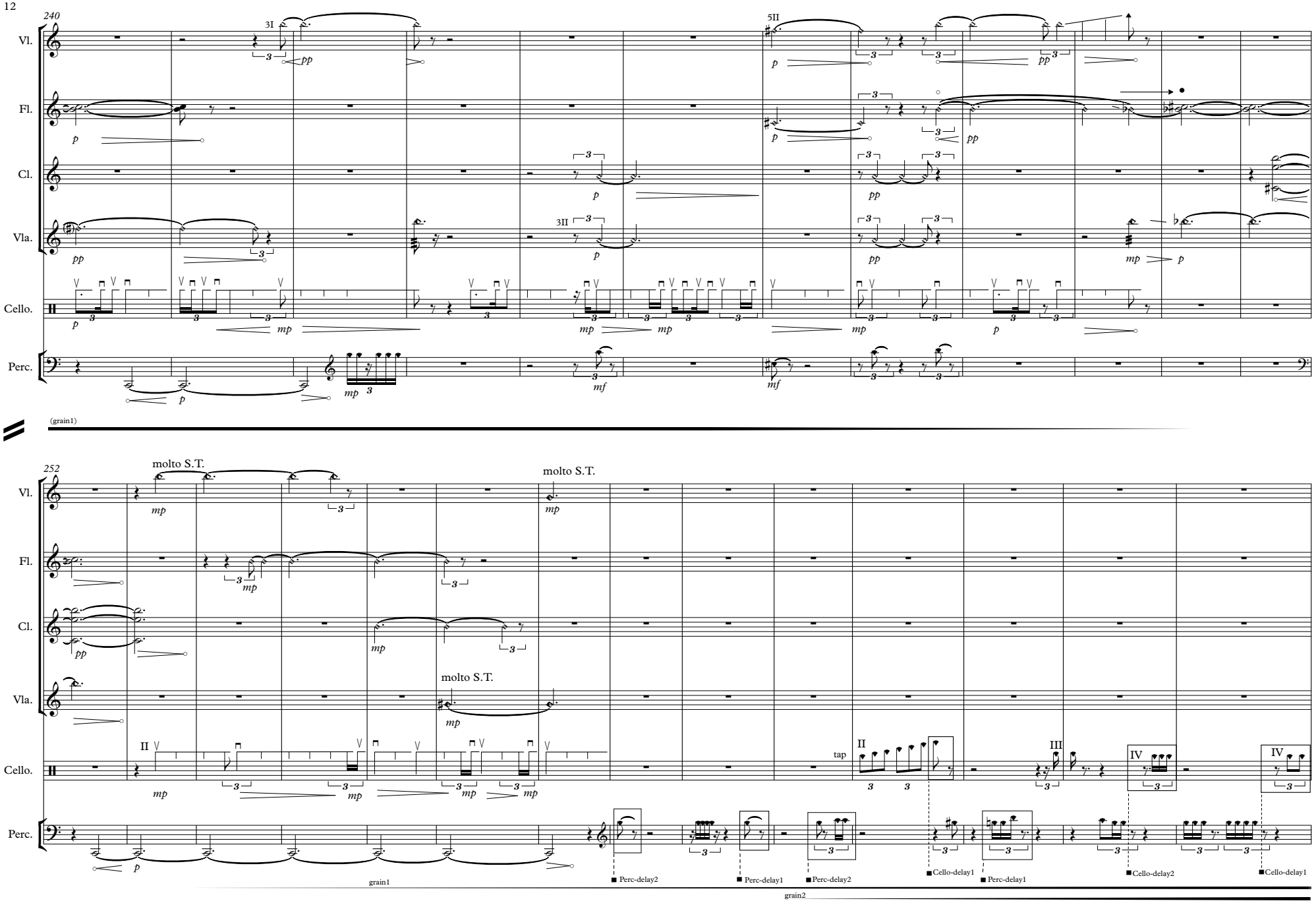

120
Vl.
Fl.
Cl.
Vla.
Cello.
Perc.
ppp
light pressure, molto S.T.
in order to get an almost airy sound.
IV
p
131
♩ = 48 circa
rall.
mp
1 (rec buffer cello)

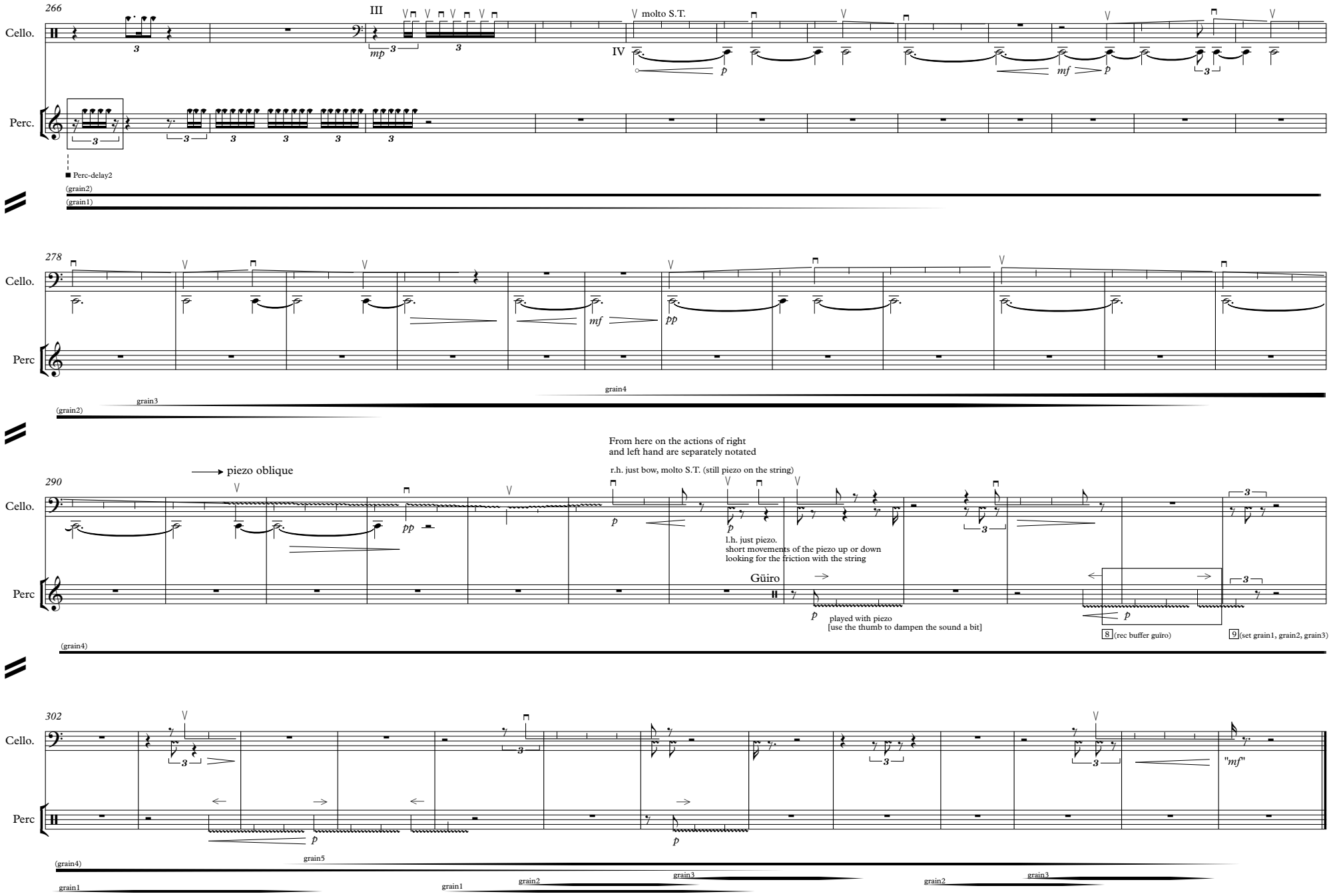

144
Vl.
Fl.
Cl.
Vla.
Cello.
Perc.
molto S.T.
pp
"mf"
mp
2 (player, set grain1)
grain1
156
3
p
3 (player)
grain1


168
Vl.
Fl.
Cl.
Vla.
Cello.
Perc.
pp
ppp
p
mp
4 (player)
grain1
180
(grain1)
5 (player)


192
Vl.
Fl.
Cl.
Vla.
Cello.
Perc.
51
pp
ppp
f
mp
mf
→ S.P.
molto S.T.
Crotales
hit the crotales with the edge of the piezo
Marimba
played with bow (piezo is fixed on the C key)
(grain1)
204
molto. S.T.
molto. S.T.
molto S.T.
molto. S.T.
molto S.T.
Crotales
Marimba
6 (rec buffer marimba)


216
Vl.
Fl.
Cl.
Vla.
Cello.
Perc.
molto S.T
piezo beyond the fingerboard
Tap
Crotales
7 (set grain1, grain2,grain3,grain4,grain5)
grain1
227
tap
Marimba
Crotales
(grain1)
Cello-delay1
Perc-delay2
grain1


240
Vl.
Fl.
Cl.
Vla.
Cello.
Perc.
3I
5II
3II
(grain1)
252
molto S.T.
molto S.T.
molto S.T.
II
tap
II
III
IV
IV
Perc-delay2
Perc-delay1
Perc-delay2
Cello-delay1
Perc-delay1
Cello-delay2
Cello-delay1
grain1
grain2


266
Cello.
III
mp
molto S.T.
IV
p
mf
p
Perc.
Perc-delay2
(grain2)
(grain1)
278
Cello.
mf
pp
Perc
grain3
grain4
(grain2)
From here on the actions of right
and left hand are separately notated
piezo oblique
290
Cello.
pp
p
r.h. just bow, molto S.T. (still piezo on the string)
l.h. just piezo.
short movements of the piezo up or down
looking for the friction with the string
Güiro
played with piezo
[use the thumb to dampen the sound a bit]
Perc
8 (rec buffer guïro)
9 (set grain1, grain2, grain3)
(grain4)
302
Cello.
"mf"
Perc
(grain4)
grain5
grain1
grain1
grain2
grain3
grain2
grain3